

Title: Music OCR

Author: Ivana Valchová

Department: Department of Software and Computer Science Education

Supervisor: RNDr. Tomáš Holan, Ph.D., Department of Software and Computer Science Education

Abstract: The thesis studies music OCR. The main goal was to verify whether the sheet music can be recognized by pattern matching. Application with graphical user interface was created using this approach. The input is a picture of a stave in which the application recognizes all music objects and displays results to the user. The recognized objects are colored according to their correspondence with matched pattern. The result is then converted to MIDI file, which can be played back directly in the application. The thesis documents the particular steps of the process and shows chosen and alternative solutions together with their advantages and disadvantages. It contains also implementation and user interface documentation.

Keywords: OCR, music score, MIDI, music